



GUARD

Protocols



Buffers/Media

LB medium

- Sodium Chloride 10 g/L
- Tryptone 10 g/L
- Yeast extract 5 g/L

For agar:

- BacAgar (1%) 15 g/L

SOB medium

- Sodium Chloride 0.5 g/L
- Tryptone 20 g/L
- Yeast extract 5 g/L
- Potassium chloride (1M) 2.5 mL/L or 0.186 g/L

SOC medium

- Sodium Chloride 0.5 g/L
- Tryptone 20 g/L
- Yeast extract 5 g/L
- Potassium Chloride (1M) 2.5 mL/L or 0.186 g/L
- Magnesiumchloride (hexahydrate) 2.03 g/L
- Glucose 3.60 g/L

Komada medium

- Na₂B₄O₇ • 10 H₂O 1g/L
- K₂HPO₄ 1g/L
- KCl 0.5g/L
- MgSO₄ • 7 H₂O 0.5 g/L
- Fe-Na-EDTA 0.01g/L
- D-galactose 20g/L
- L-asparagine 2g/L
- Agar 15g/L
- PCNB (Terraclor 75 % WP)(pentachloronitrobenzene) 1g/L

Heat to boiling to melt agar. Do not autoclave. Cool to 50/55 °C. Then add:

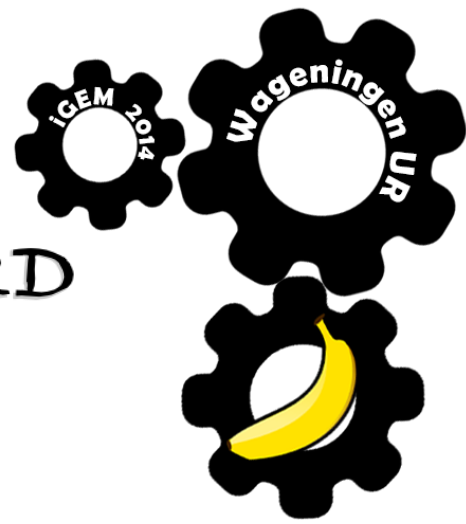
- oxgall (Bile Bovine) 0.5 g/L
- streptomycin sulfate 0.3 g/L

Reference:

Komada, H. 1976. A new selective medium for isolating Fusarium from natural soil. Proceedings of the American Phytopathological Society 3:221



BANANA GUARD



M9 medium

- Measure ~700ml of distilled H₂O (sterile)
- Add 200ml of M9 salts
- Add 2ml of 1M MgSO₄ (sterile)
- Add 20 ml of 20% glucose (or other carbon source-20% glycerol)
- Add 100µl of 1M CaCl₂ (sterile)
- Adjust to 1000ml with distilled H₂O

100X trace elements solution

- EDTA : 5 g /L (13.4 mM)
- FeCl₃-6H₂O: 0.83 g/L (3.1 mM)
- ZnCl₂ : 84 mg/L (0.62 mM)
- CuCl₂-2H₂O: 13 mg/L (76 µM)
- CoCl₂-2H₂O: 10 mg/L (42 µM)
- H₃BO₃: 10 mg/L (162 µM)
- MnCl₂-4H₂O: 1.6 mg/L (8.1 µM)

Antibiotic concentrations

Antibiotics	Concentration	Concentration putida
Ampicillin	100µg/ml	
Kanamycin	20µg/ml	50µg/ml
Tetracyclin	12.5µg/ml	
Chloramphenicol	25µg/ml	